

AMENDMENTS TO THE CLAIMS

In the Claims: Please amend Claims 1 and 4. Please cancel Claims 2 and 3. A complete copy of the claims including marked-up versions of each claim which is amended in this Amendment G appears below. No new matter has been added.

1 1. (Currently Amended) A machine for inspecting the wall of a bottle
2 comprising
3 a conveyor for supporting a bottle at an inspection station,
4 the inspection station including
5 a CCD camera on one side of the conveyor having a camera image,
6 a light source, on the other side of the conveyor, for imaging the
7 bottle on said CCD camera image,
8 wherein said light source comprises a plurality of L.E.D. rows, and
9 wherein said plurality of L.E.D. rows define a plurality of row groups each including a
10 row having a maximum brightness level, a row having a minimum brightness level, at
11 least one row intermediate said row having said maximum brightness level and said row
12 having said minimum brightness level having a brightness level between said minimum
13 brightness level and said maximum brightness level, and at least one row on the side of
14 the row having the minimum brightness level remote from said row having the maximum
15 brightness level having a brightness level between the minimum brightness level and the
16 maximum brightness level,
17 energy controlling means for operating said light source to emit light energy for
18 defining light intensities varying between a minimum brightness level that will permit the
19 identification of a light blocking defect and a maximum brightness level, the brightness
20 level varying spatially, cyclically, and continuously at a rate of change which is less than
21 a rate of change that would be identified as a defect,

22 computer means for analyzing the camera image by comparing neighboring pixels
23 to determine the rate of change in brightness level to identify defects where the rate of
24 change exceeds a defined value.

2. (Cancelled).

3. (Cancelled).

1 4. (Currently Amended) A machine for inspecting the profile and wall of a
2 bottle according to claim 1 3, wherein there are a plurality of vertical L.E.D. rows
3 intermediate the row having the minimum brightness level and the row having the
4 maximum brightness level and the brightness level of said plurality of intermediate rows
5 uniformly reduces from the row having the maximum brightness level to the row having
6 the minimum brightness level.

1 5. (Original) A machine for inspecting the profile and wall of a bottle according
2 to claim 4, wherein there are a plurality of vertical L.E.D. rows on the side of said row
3 having the minimum brightness level remote from said row having the maximum
4 brightness level and the brightness level of said plurality of said rows on the side of said
5 row having the minimum brightness level remote from said row having the maximum
6 brightness level uniformly increasing in brightness level proceeding away from the row
7 having the minimum brightness level.

1 6. (Original) A machine for inspecting the profile and wall of a bottle according
2 to claim 5, wherein the row having the minimum brightness level has a brightness level
3 of about 20% of the maximum brightness level and where each of said vertical L.E.D.
4 row groups has three vertical rows intermediate the row having the minimum brightness
5 level and the row having the maximum brightness level, with the row adjacent the row

6 having the minimum brightness level having a brightness level of about 40% of the
7 maximum brightness level and the row adjacent the row having the maximum brightness
8 level having a brightness level of about 80% of the maximum brightness level and the
9 intermediate of the three vertical rows intermediate the row having the minimum
10 brightness level and the row having the maximum brightness level having a brightness
11 level of about 60% of the maximum brightness level.

1 7. (Original) A machine for inspecting the profile and wall of a bottle according
2 to claim 6, wherein each of said vertical L.E.D. row groups has three vertical rows on the
3 side of the row having the minimum brightness level remote from the row having the
4 maximum brightness level, with the row adjacent the row having the minimum brightness
5 level remote from the row having the maximum brightness level having a brightness level
6 of about 40% of the maximum brightness level and the next of the three vertical rows on
7 the side of the row having the minimum brightness level remote from the row having the
8 maximum brightness level having a brightness level of about 60% of the maximum
9 brightness level and the last of the three vertical rows on the side of the row having the
10 minimum brightness level remote from the row having the maximum brightness level
11 having a brightness level of about 80% of the maximum brightness level.